

WELL COMPLETION SKETCHES

N.B.U.3-W28

WELL

E.P.A.# OS 0129



PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1,107.52' GL: 1,100.02'

ALL MEASUREMENTS K.B.

LEGAL: 420' FNL, 135' FEL SE/4 SEC. 3-27N-5E, Osage Co, Ok.

8-5/8" 32# SET @ 121' CMTD W/90 SX REG CMT TOC @ SURFACE

4-1/2" 9.5# SET @ 2,936' CMTD W/75SX CLASS A TOC @ 1,750'(TEMP SURVEY)

3 1/2" 9.3# LINER @ 2,904' (BOTTOM 3 JTS CHROME LINED) CMTD W/340 SXS TOC @ SURFACE

87 JTS-2 1/16" INJECTION STRING AS-1X PKR @ 2,864'.

ZONE:

SKINNER SAND: 2,904' TO 2,918' BURBANK FORMATION 2,954' To 3,003' SAND: COMPLETED DRILLED HOLE NORTH BURBANK UNIT

FIELD

2/11/2014.

DATE

USDW: 201'

ORIGINAL COMPLETION

DATA ON THIS COMPLETION

D&C: 12/21/1964

IP: NONE

INITIAL TRTMNT: 125 gals

Mud Acid

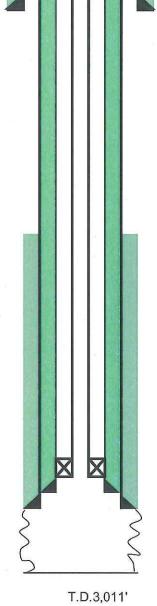
STARTED INJECTION 3/21/64 500 BPD DOWN CSG.

7/30/1967, Run 4 1/2" Larkin pkr & 95 jts 2 3/8" tub. Set pkr at 2,912' inject 1,000 BPD @ 480 psi.

8/18/1988, unseat packer and run 3 jts 2 3/8" tub and run pkr out bottom of casing.

Install FLMD, 3/17/1989

NOTE: MAY WANT TO LOOK AT SKINNER ZONE @ 2,904' Logs calculate 18-20% Porisity and 40 to 45% SW



NORTH BURBANK UNIT

FIELD

WELL COMPLETION SKETCHES

N.B.U.4W26

WELL

E.P.A.# OS 0135

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB:1114.42' GL:1107.32'

ALL MEASUREMENTS K.B.

Legal: 420' FNL, 1,300' FWL, SW/4

Sec, 2-27N-5E, Osage Co, Ok.

8-5/8" 32# SET @ 121' CMTD W/80 SX REG CMT TO SURFACE

4-1/2" 9.5# SET @ 2,963' CMTS W/75SX CLASS A W/30% DD & 2% CC

6/6/2007, run 3 1/2" FJ casing to 2,944', cement W/ 150 sks reg 2 % gel. Run & cement down 322' 1" tubing between 4 1/2" & 8 5/8" W/ 129 sks reg cement, cement to surface.

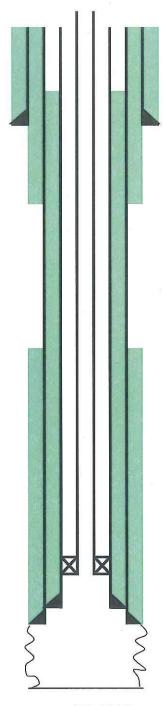
1/24/2014.

3 1/2" packer set @ 2,897' on 89 jts 2 1/16" ceramic lined tubing. IPC Arrow packer W/SL Sheer Test annulus to 500 psi, tested OK.

ZONE:

BURBANK FORMATION 2,952' to 3,002'

COMPLETED DRILLED HOLE From 2,963' to 3,011'



2/11/2014.

DATE

USDW: 207'

ORIGINAL COMPLETION

DATA ON THIS COMPLETION

D&C 12/22/64

IP: NONE

INITIAL TRTMNT: 12/22/1964

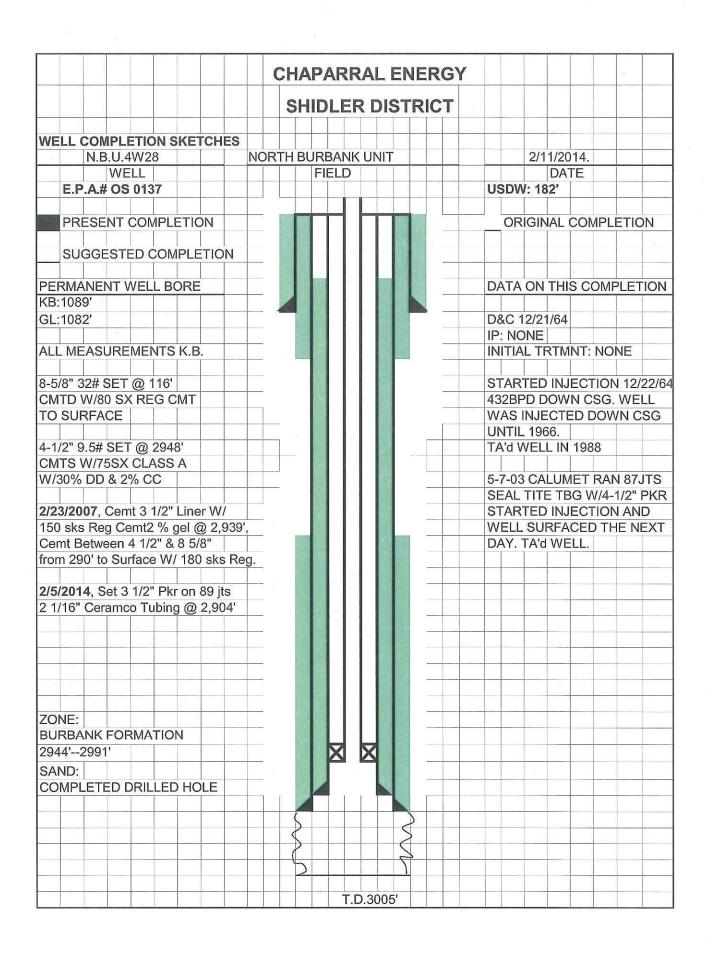
125 gals Mud acid

STARTED INJECTION 12/23/64 410BPD DOWN CSG. WELL WAS INJECTED DOWN CSG UNTIL 1967.

TA'd WELL 1977

TOC on 4 1/2" @ 1,760'

Installed FLMD, 12/2/1988



WELL COMPLETION SKETCHES

N.B.U. 8-W28

NORTH BURBANK UNIT

2/11/2014.

DATE

WELL

E.P.A.# OS 0156

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB:1097.02' GL:1089.52'

Legal: 410' FNL, 105' FEL, NE/4

Sec 10-27N-5E, Osage Co, Ok.

ALL MEASUREMENTS K.B.

8-5/8" 32# SET @ 111' CMTD W/80 SX REG CMT TO SURFACE

4-1/2" 9.5# SET @ 2976' CMTS W/75SX CLASS A W/30% DD & 2% CC

8/10/07, Ran 2,930' of 3 1/2" liner, cmt'd w/150 sxs Reg cmt. 1" cmt to surface w/84 sxs Regular cmt.

1/8/14: Set packer on 89 jts 2 1/16" coated tubing @ 2,915'

ZONE:

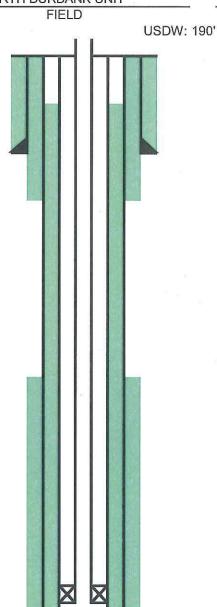
BURBANK FORMATION

2967'--3029'

SAND:

COMPLETED DRILLED HOLE

Open hole cored & reamed



ORIGINAL COMPLETION

WELL CLASS: INJECTION

DATA ON THIS COMPLETION

D&C 6/64

IP: NONE

INITIAL TRYMNT: NONE

STARTED INJECTION 1964 360BPD DOWN CSG, WELL WAS INJECTED DOWN CSG UNTIL 1967.

TOC @ 2,200' outside 4 1/2"

January 2010 injection rate, 1,845 bwpd @ 60 PSI

WELL COMPLETION SKETCHES

N.B.U. 10-W25

WELL

E.P.A.# OS 0176

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE KB:1150' GL:1142' ALL MEASUREMENTS K.B.

LEGAL: 420' FNL, 550' FWL NE/4 Sec 11-27N-5E, Osage Co, Ok.

8-5/8" 32# SET @ 113' CMTD W/80 SX REG CMT TO SURFACE

4-1/2" 9.5# SET @ 3015' CMTS W/75SX CLASS A W/30% DD & 2% CC

TOC @ 1900'

3/16/2007, run 3 1/2" 9# casing to 2,982' & cement W/ 150 sks reg cemt, 2% gel, run 300' 2 1/16" between 4 1/2" & 8 5/8" & cemt W/ 119 sks reg cement to surface.

3/23/2007, Run 92 jts 2 1/16" Ceramic lined tubing W 3 1/2" Arrow packer & set @ 2,957'

ZONE: BURBANK FORMATION 3005'--3054' SAND:

COMPLETED DRILLED HOLE

NORTH BURBANK UNIT

FIELD

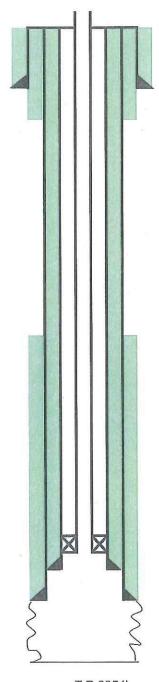
01/22/2013. DATE

ORIGINAL COMPLETION

DATA ON THIS COMPLETION

D&C 5/21/64 IP: 328 bwpd on vac INITIAL TRTMNT: 125 gals Mud Acid

STARTED INJECTION 6/11/64 271BPD DOWN CSG. WELL WAS INJECTED DOWN CSG UNTIL 1967.



T.D.3054'

NORTH BURBANK UNIT

WELL COMPLETION SKETCHES

N.B.U.14-W24

WELL

E.P.A.#

OS 0201

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1,127' GL: 1,120'

All Measurements From RKB

Legal: 890' FSL, 75' FEL, SE/4 Sec. 10-27N-5E, Osage Co. Ok.

8 5/8" 32# @ 120' Cemented W/ 110 Sks Reg Cement, 2% CC 4/28/2011, Cement down 1" tbg between 4 1/2" & 8 5/8" W/ 180 sks reg cement.

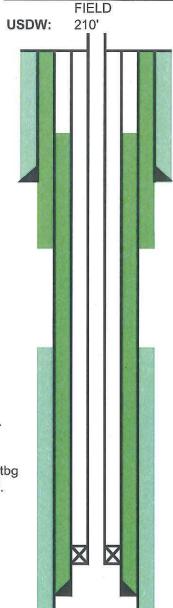
4 1/2" 9.5# @ 2,986' cemented w/ 75 Sks reg. 30% Diacel D.

4/27/2011: Run 3 1/2" 9.3# casing at 2,960' W/ bottom 3 joints chrome. Cmt'd w/150 sks reg 2% gel cmt.

2/5/2014: Run 90 jts 2 1/16" coated tbg & 3 1/2" Arrow pkr, set pkr @ 2,940'.

BURBANK FORMATION 2,986'-3,048'

COMPLETED OPEN HOLE



TD 3.050'

2/11/2014

DATE

Well Class: Injection

ORIGINAL COMPLETION

D&C 7/2/1980

IP:

8 5/8" @ 120'

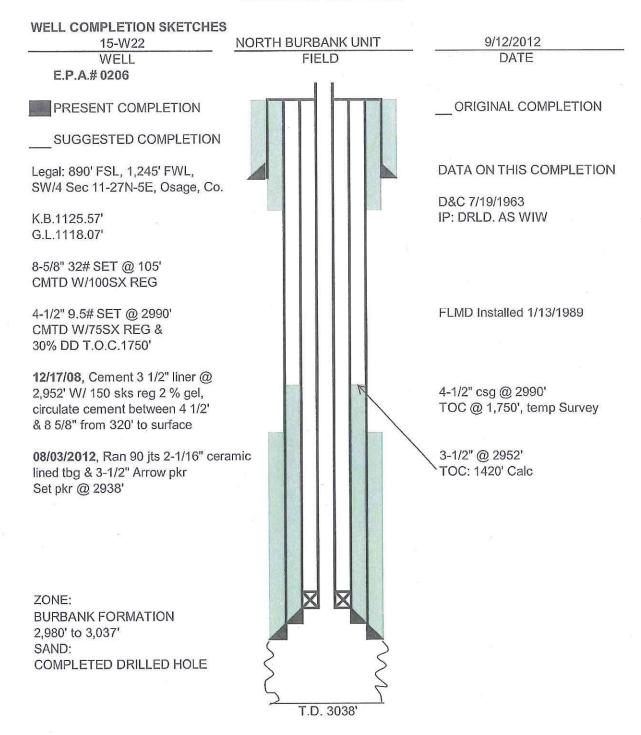
INITIAL TREATMENT: 7/25/1963, 125 gals MCA

7/25/1963, Start Water Inj 370 bwpd on Vac

T.A.d in 1988 due to casing leaks.

TOC: 1,700, Temp Survey

4 1/2" @ 2,986'



NORTH BURBANK UNIT

WELL COMPLETION SKETCHES

15-W25 WELL **E.P.A.# 0209**

PRESENT COMPLETION

SUGGESTED COMPLETION

Legal: 435' FNL, 545' FWL, SW/4 Sec 11-27N-5E, Osage, Co.

K.B.1082.25' G.L.1074.75'

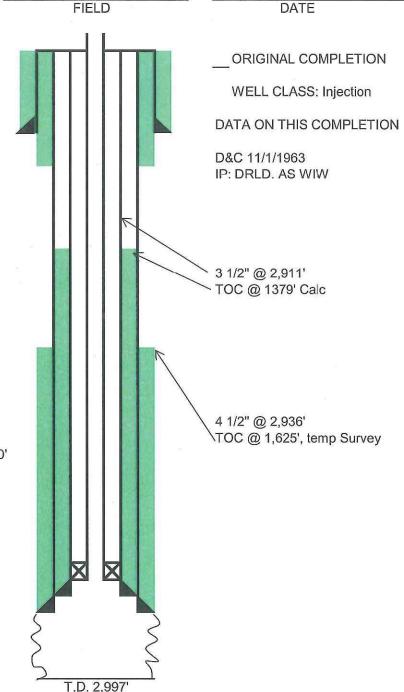
8-5/8" 32# SET @ 111' CMTD W/90SX REG

4-1/2" 9.5# SET @ 2,936' CMTD W/75SX REG & 30% DD T.O.C. 1,625'

1/13/06, Cement 3 1/2" liner @ 2,911' W/ 200 sks reg 2 % gel, circulate cement between 4 1/2' & 8 5/8" from 270' to surface W/150 sks reg cement

10/30/2013, RIH w/2-1/16" injection string & 3-1/2" Arrow pkr set @ 2900'

ZONE:
BURBANK FORMATION
2,929' to 2,995'
SAND:
COMPLETED DRILLED HOLE



2/11/2014

TD 3,080'

WELL COMPLETION SKETCHES

N.B.U.16-W25

WELL

E.P.A.# OS 0218

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1152.35' GL: 1144.85'

All Measurements From RKB

Legal: 420' FNL, 565' FWL, SE/4 Sec. 11-27N-5E, Osage Co. Ok.

8 5/8" 32# @ 113' Cemented W/ 90 Sks Reg Cement

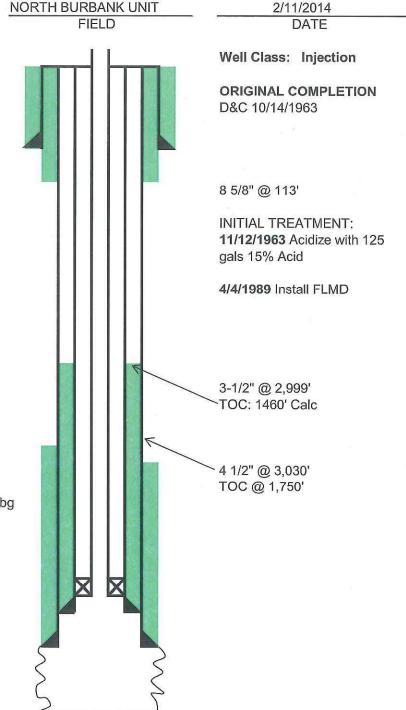
4 1/2" 9.5# @ 3,030' cemented w/ 75 Sks reg. 30% Diacel D

11/18/2008, Set 3 1/2" liner @ 2,999' and cement W/ 150 sks reg cemt 2% gel. Run 360' of 1" between 4 1/2" and 8 5/8" casings and cement to surface W/ 225 sks regular cement.

11/06/2013, RIH w/2-3/8" ULT-FX tbg & 3-1/2" Arrow 1X set @ 2943'

BURBANK FORMATION 3,013'-3,072'

COMPLETED OPEN HOLE



WELL COMPLETION SKETCHES

N.B.U.16-W27

WELL

E.P.A.# OS 0220

NORTH BURBANK UNIT

FIELD

TD 3,056'

2/11/2014

ORIGINAL COMPLETION

DATE

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1161.25' GL: 1153.75'

All Measurements From RKB

Legal: 420' FSL, 715' FWL, SE/4 Sec. 11-27N-5E, Osage Co. Ok.

8 5/8" 32# @ 119' Cemented W/ 90 Sks Reg Cmt, TOC @ Surface.

4 1/2" 9.5# @ 3,020' cmt'd w/75 sxs regular cmt. 1" cmt to surface in 4 1/2"-8 5/8" annulus w/175 sxs.

2/13/08: Ran 95 jts 3 1/2" 9.5# liner (bottom 4 jts chrome lined) @ 2,995' w/150 sxs regular cmt.

1/14/14: Set 3 1/2" Arrow pkr @ 2,952' on 90 jts of 2 1/16" coated tubing.

BURBANK FORMATION 3,010'-3,055'

COMPLETED OPEN HOLE

USDW: 229'
Well Class: Injection

8 5/8" @ 119'

D&C 9/30/1963

IP:

INITIAL TREATMENT: 10/22/1963 Acidize with 125 gals Mud Acid

5/21/1989 Install FLMD

TOC: on 4 1/2" @ 1,800'

3 1/2" Liner @ 2,995' 4 1/2" @ 3,020'

WELL COMPLETION SKETCHES

N.B.U.17-W25

WELL

NORTH BURBANK UNIT

FIELD

TD 3,026'

2/12/2014

DATE

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1143' GL: 1136'

All Measurements From RKB

Legal: 345' FNL, 565' FWL, SW/4 Sec. 12-27N-5E, Osage Co. Ok.

8 5/8" 32# @ 111' Cemented W/ 90 Sks Reg Cement

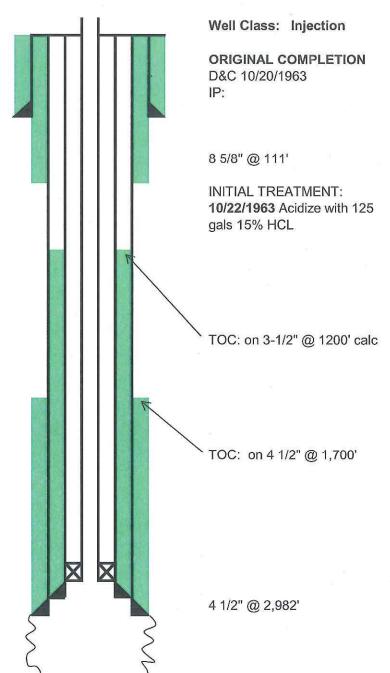
4 1/2" 9.5# @ 2,982' cemented w/ 75 Sks reg. 30% Diacel D

11/4/08, Cement 3 1/2" liner @ 2,955' W/ 150 sks reg cemt. 2% gel. Cement down 1" @ 320' to surface W/ 150 sks reg cemt.

01/09/2014, RIH w/2-1/16" injection string & 3-1/2" pkr& 3-1/2 " Set @ 2,922'

BURBANK FORMATION 2,972'-3,026'

COMPLETED OPEN HOLE



WELL COMPLETION SKETCHES

N.B.U. 23W28

NORTH BURBANK UNIT

2/11/2014

WELL

DATE

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1,124.05' GL: 1,115.47'

Legal: 420' FNL, 75' FEL, NW/4 sec 14-27N-5E, Osage Co, Ok.

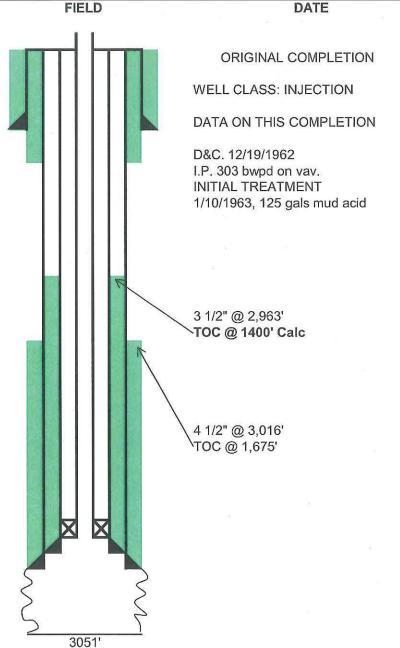
8-5/8" @ 121' w/ 105sxs

4-1/2" @ 3016' w/ 110sxs 30% DD TOC @ 1675'

4/13/2011, Run 101 jts 3 1/2" liner bottom 3 jts are chrome. Cement W/ 150 sks reg cemt 2% gel @ 2,963' cement down 1" @ 320 between 4 1/2" & 8 5/8" W 150 sks reg, cemt to surface.

02/09/2014, RIH w/92 jts 2 1/16" tbg W/ Arrow pkr set @ 2943'

ZONE: **BURBANK FORMATION** 3'006' to 3,048'



WELL COMPLETION SKETCHES

N.B.U. 24W27

NORTH BURBANK UNIT

2/12/2014

WELL

E.P.A.# OSO265

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1143' GL: 1135' Legals

Sec 14-27N-5E

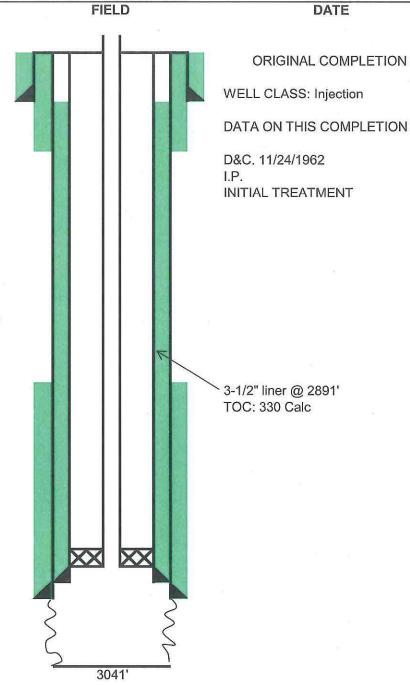
8-5/8" 32# @ 124' w/ 105 sxs

4-1/2" 9.5# @ 3002' w/ 135sxs 20% Diacel D

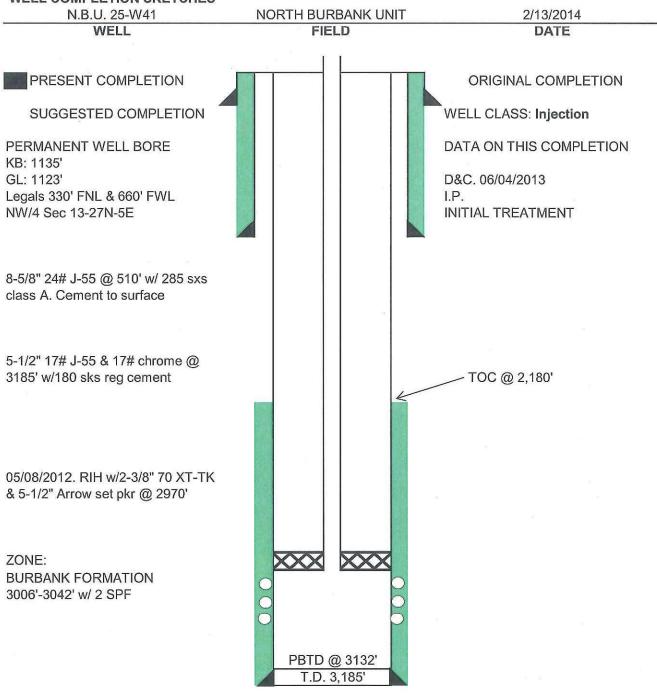
Run 3 1/2" liner, 9.2# bottom 3 jts are chrome. Cement W/ 250 sks reg cemt 2% gel @ 2,891' Ran 301' of 1" tbg between 4 1/2" & 8 5/8" & cement W/ 134 sks reg cement to surface.

01/24/2014. RIH w/2-1/16" inj string & 3-1/2" Arrow pkr set @ 2883'

ZONE: BURBANK FORMATION 3002'-3041'



WELL COMPLETION SKETCHES



TD 3118'

WELL COMPLETION SKETCHES

N.B.U 31W25

WELL

NORTH BURBANK UNIT

2/13/2014

PRESENT COMPLETION

SUGGESTED COMPLETION

PERMANENT WELL BORE

KB: 1177' GL: 1169'

Legals 420' FNL & 565' FWL

SW/4 Sec 14-27N-05E

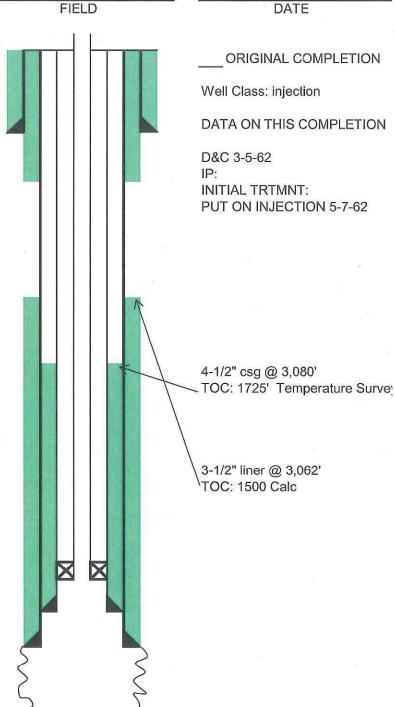
8-5/8" csg set @ 110' & cemented w/ 105 sks reg cmt to surface

4-1/2" 9.5# Set @ 3080' KB Cmtd W/190 sxs reg cmt 30% DD.

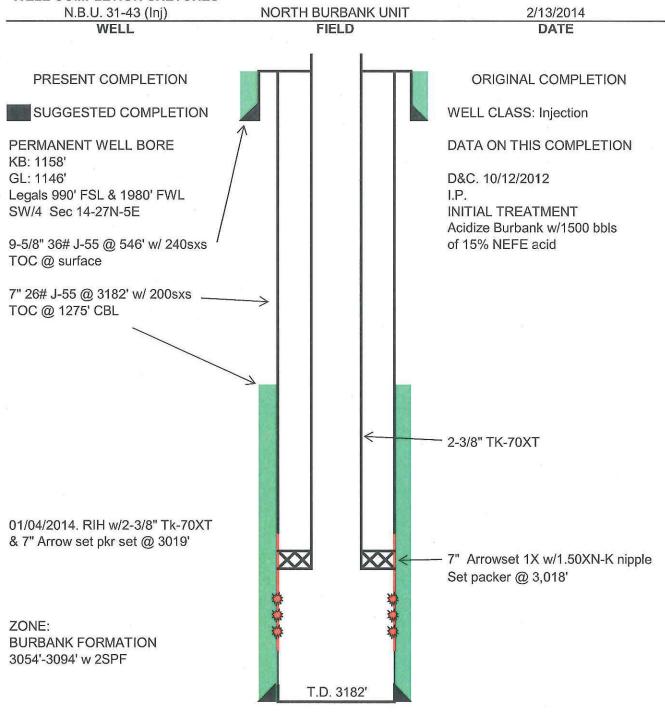
06/15/2004. Run 3 1/2" liner & Set @ 3,062. Cemented w/150 sks reg cmt w/2% gel 06/02/2004. Squeeze holes in 4-1/2" @ 344' w/75 sks reg & circulated cement to surface.

02/11/2014, RIH 3 1/2" Stainless Arrow pkr on 2-1/16" Tk-70 tbg Set pkr @ 2975'

ZONE:
BURBANK FORMATION
3070'---3115'
SAND:
COMPLETED OPEN HOLE



WELL COMPLETION SKETCHES



WELL COMPLETION SKETCHES

N.B.U 32W27

WELL

NORTH BURBANK UNIT

2/13/2014

DATE



SUGGESTED COMPLETION

PERMANENT WELL BORE KB: 1124' GL: 1115' ALL MEARSMENT FROM KB.

420' FNL, 715' FEL, SE/4 Sec. SE/4 SEC.14-27N-5E 14-27N-5E, Osage Co, OK.

SUFACE PIPE 8 5/8 OD SET AT 118' CMT W/110 SXS COMMON

41/2" 9.5# SET AT 3007' KB CMT W/135SXS COMMON 30% DD.

8/27/08, Cement 3 1/2" liner @ 2,971' & cement W/ 150 sks reg 2% gwl, run 290' 1" between 8 5/8" & 4 1/2", cement to surface W/ 150 sks reg cement.

01/22/2014. RIH w/2-1/16" Inj string & 3 1/2" packer set @ 2,950'

ZONE: BURBANK FORMATION 2997'---3042' SAND: COMPLETED OPEN HOLE

